

**WHAT IS CLAIMED IS:**

1. A moving picture compression encoding transceiver apparatus for sending media packet from a sender side apparatus to a receiver side apparatus, and sending and receiving a sender report packet and a receiver report packet between the sender  
5 side apparatus and the receiver side apparatus, wherein

each of the sender report packet and the receiver report packet comprises report packets of two kinds differing in size, and

10 the sender side apparatus comprises a transmission bit rate estimation means for estimating transmission bit rate on the basis of round-trip delay time for a sender report packet and a receiver report packet each having a small size and round-trip delay time for a sender report packet and a receiver  
15 report packet each having a large size.

2. The moving picture compression encoding transceiver apparatus according to claim 1, wherein the transmission bit  
20 rate estimation means estimates transmission bit rate by using dual linear simultaneous equations composed of an equation for finding round-trip delay time for the sender report packet and the receiver report packet each having the small size and an equation for finding round-trip delay time for the sender report  
25 packet and the receiver report packet each having the large size.

3. The moving picture compression encoding transceiver

apparatus according to claim 1, wherein the sender report packet and the receiver report packet each having the large size are obtained by adding dummy data to the sender report packet and the receiver report packet each having the small size, respectively.

4. The moving picture compression encoding transceiver apparatus according to claim 3, wherein the sender side apparatus sends a set of packets combined in the order of a sender report packet having a small size, a sender report packet having a large size, and media packets.

5. The moving picture compression encoding transceiver apparatus according to claim 4, wherein, after sending and receiving of a set of packets have been finished, the next set of packets is sent.

6. The moving picture compression encoding transceiver apparatus according to claim 3, wherein the dummy data has been subjected to compression processing.

7. The moving picture compression encoding transceiver apparatus according to claim 1, wherein transmission bit rate

estimated by the transmission bit rate estimation means is reflected into encoding for media.

5           8. The moving picture compression encoding transceiver apparatus according to claim 7, wherein, when reflecting the transmission rate on a network estimated by the transmission bit rate estimation means into encoding for media, rate control is conducted according to priority of subject media.

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